

## Posttraumatic growth as a process and an outcome

Posttraumatic growth as a process and an outcome:

Vexing problems and paradoxes seen from the perspective of humanistic psychology

Stephen Joseph

*University of Nottingham*

**© 2019, American Psychological Association. This paper is not the copy of record and may not exactly replicate the final, authoritative version of the article. Please do not copy or cite without authors' permission. The final article will be available, upon publication, via its DOI: 10.1037/hum0000156**

Correspondence should be addressed to Stephen Joseph, PhD, Professor, School of

Education, University of Nottingham, Nottingham, United Kingdom NG8 1BB.

E-mail: [stephen.joseph@nottingham.ac.uk](mailto:stephen.joseph@nottingham.ac.uk)

### AUTHOR NOTE

Stephen Joseph is professor in the School of Education at the University of Nottingham, England, where he convenes the human flourishing research group. He is a registered psychologist specialising in psychotherapy. His areas of interest include person-centred psychology, positive psychology, and posttraumatic growth. He is the originator of the Organismic Valuing Theory of Growth following Adversity and author of *What doesn't kill us: The new psychology of posttraumatic growth*. The ideas in this article are all implicit in the Organismic Valuing Theory but are unpacked here in this article in greater depth and detail than previously.

## **Abstract**

The aim is to discuss the concept of posttraumatic growth (PTG) from the perspective of humanistic psychology. Research findings in PTG have posed what seem to be challenging theoretical problems. In this article, I discuss these problems from the perspective of Joseph and Linley's (2005) Organismic Valuing Process (OVP) theory of growth following adversity. Seen from the humanistic psychology tradition of OVP theory, PTG represents a normative affective-cognitive process of real change towards constructive personality development that leads to resilience and adaptive functioning. I hope to position the topic of growth following adversity more clearly within the field of humanistic psychology, and to set a new non-medicalized research agenda for researchers and clinicians.

**Keywords:** psychological trauma, posttraumatic growth, PTG, organismic valuing, person-centered

## Posttraumatic growth as a process and an outcome

### Posttraumatic growth as a process and an outcome:

#### Vexing problems and paradoxes seen from the perspective of humanistic psychology

In the early 1990's, following an explosion of research in the 1980's into posttraumatic stress disorder (PTSD), some researchers began to observe that survivors of trauma also reported perceiving benefits and positive changes (e.g., Calhoun & Tedeschi, 1991; Joseph, Williams, & Yule, 1993). In 1995, the term posttraumatic growth (PTG) was coined by Tedeschi and Calhoun (1995) capturing the imagination of many researchers, clinicians and therapists. PTG was, and continues to be, defined by those who originated the term as "positive psychological changes experienced as a result of the struggle with traumatic or highly challenging life circumstances" (Tedeschi, Shakespeare-Finch, Taku, & Calhoun, 2018, p. 3). The term PTG was chosen to convey the notion that what is being described is a positive transformational development (Tedeschi et al., 2018, p. 6).

Over two decades later, PTG is an established field of trauma scholarship and practice. However, empirical research findings have posed what seem to be perplexing and paradoxical theoretical questions. In this article, I use Joseph and Linley's (2005) Organismic Valuing Process (OVP) theory of growth following adversity to discuss how these questions may be viewed differently from the humanistic psychology tradition, such that they no longer seem perplexing or paradoxical. First, I will discuss the concept of growth itself and how there are two different discourses within the field of PTG research and practice, which may reflect contrasting paradigms - an illness ideology and a humanistic model of growth. Second, I will discuss six questions posed by PTG research and how each of these are dealt with by the humanistic model of growth. I will argue that it is only when viewed from within an illness ideology that these questions seem problematic. I hope to position the topic of growth following adversity more clearly within the field of humanistic psychology, and to set

Posttraumatic growth as a process and an outcome

a new non-medicalized agenda for researchers in positive psychology to be explicit in their theoretical positionality in relation to the concept of growth.

## **THE CONCEPT OF GROWTH**

In the early years of interest in the topic, some researchers reported that survivors of trauma reported changes of a positive nature. Several terms were introduced, such as positive meaning (Thompson, 1985), perceived benefits (Calhoun & Tedeschi, 1991), positive changes (Joseph, Williams, & Yule, 1993), quantum change (Miller & C'deBaca, 1994), self-renewal (Jaffe, 1985), transformational coping (Aldwin, 1994), and thriving (O'Leary & Ickovics, 1995); but as already mentioned, it was the term PTG introduced by Tedeschi and Calhoun (1995) that attracted the most interest. Although originating within the field of traumatic stress, PTG has since become a flagship topic of the positive psychology movement (Joseph, 2011; Tedeschi, Calhoun, & Groleau, 2015). It has also provoked new thinking in arenas of applied psychology; scholarly papers on PTG are now published across a range of coaching, counseling, clinical, health, as well as social and personality psychology journals, evidencing the breadth of interest in the topic and its applications (see, Tedeschi et al., 2018). PTG has provided an umbrella term for scholarship across the world (Weiss & Berger, 2010). But sheltering under this umbrella are now a diverse body of scholars who appear to use the term PTG in a variety of ways which may or may not be compatible with how Tedeschi and Calhoun (1995) originally intended the term to be used or their theoretical framework.

Tedeschi and Calhoun who coined the term PTG have their own very specific conceptual model and measurement tools consistent with their definition and professional interests (Tedeschi et al., 2018). PTG as conceptualized by Tedeschi and Calhoun (1996) in their widely used Posttraumatic Growth Inventory (PTGI) included five dimensions: personal

## Posttraumatic growth as a process and an outcome

strength, relating to others, new possibilities, appreciation of life, and spiritual and existential change. The PTGI asks respondents to rate how much they perceive themselves to have changed in positive ways on each of these dimensions since a trauma.

The PTGI has been the most widely used measure, and captures a range of experiences commonly reported by survivors. But research has noted that there are other phenomena experienced by people as growthful that are not included in PTGI, such as empathy, gratitude, love, and humility (McCormack, Hagger, & Joseph, 2011). Other tools have also been developed such as the Changes in Outlook Questionnaire (Joseph, Williams, & Yule 1993), Perceived Benefit Scales (McMillen, & Fisher, 1998), Post-Traumatic Changes Questionnaire (Joseph, Maltby, Wood, Stockton, Hunt, & Regel, 2012), Stress-Related Growth Scale (Park, Cohen, & Murch, 1996), and the Thriving Scale (Abraído-Lanza, Guier, & Colón, 1998). Although often used interchangeably, differential associations between these measures and other factors are often found (e.g., Pais-Hrit, Wong, Gould, & Ponsford, 2019; Joseph et al., 2012) suggesting that they are not all measuring exactly the same phenomena. These alternative methods, theories, and professional practices mean that there may be fundamentally different discourses about these phenomena taking place under the single umbrella term of PTG.

### **Methodologically in an economic sense**

On the surface, there is a clear commonality across all the measurement methods. All attempt to measure growth in what is essentially a mathematical sense to indicate a relative increase in amount, value, or importance of some characteristics of the person over time. For example, it is common to ask people to self-report retrospectively on their experience of change. This is referred to as ‘perceived PTG’. Another method is to examine changes in a state measure over time. This is referred to as ‘actual PTG’. However, regardless of measurement method, both are attempts to assess growth in a mathematical sense; in exactly

## Posttraumatic growth as a process and an outcome

the same way as when one refers to the economy growing, simply to mean an increase in productivity, income, and so on.

It is in this economic sense that empirical researchers conceptualize their dependent variables for statistical analysis. This is how research papers report PTG, whether it be through longitudinal methods of data collection to assess actual growth or retrospective accounts to assess perceived growth. But while the term PTG refers to an increase in a positively valued state, the word growth in this economic sense does not itself necessarily imply a positively valued state. For example, one could equally talk about a growing prevalence in an illness. Inevitably all researchers doing quantitative statistical analysis approach the topic of PTG in an economic sense; but the point is that it is not clear in the vast majority of published papers whether the term is also being used in the other sense of growth as a biological process of constructive personality development, than purely as a noun referring to an increase in a positive characteristic of the person.

### **Theoretically as a biological process**

The other meaning of the term growth, familiar to humanistic psychologists, is in its use as a biological process in which it is understood that living creatures are born, and strive to develop to their best potential (DeCarvalho, 1991). This is a way of understanding human experience, not simply as an increase in a state, but in the sense of development, maturity, increasing complexity, and the idea that human beings have a natural and normal propensity towards the development of their potential. In humanistic psychology the idea of growth as a biological process is a familiar idea with a long and distinguished heritage going back to the writings of Goldstein (1939) who saw self-actualization as a fundamental process in every organism, Horney (1950) who described the process of self-realization, Maslow (1968) who built on these earlier ideas to further understanding of self-actualization, Erikson (1980) who took an epigenetic approach to how personal growth unfolds over the life cycle, and Rogers

(1959) who developed the person-centered approach. Although there were differences between their theories, all of these scholars proposed a psychology founded on the similar principle of personal growth.

Many authors seem to use the term PTG in an economic but not in a biological sense familiar to humanistic psychology. The Organismic Valuing Process (OVP) theory (Joseph & Linley, 2005) is a humanistic approach based on Rogers' (1959) theory that describes growth following adversity not only as an increase in a measurable state but also as the unfolding of an intrinsic process of development within the person. Below I will describe the OVP theory in more detail, beginning with its roots in Rogers' (1959) theory of personality development.

### **ORGANISMIC VALUING PROCESS**

Rogers (1959) posited that a tendency towards actualization was inherent in all people, who as a consequence are continually motivated toward reconciling incongruence between self and experience, in such a way as to develop, maintain, and enhance the organism. Rogers conceptualised the basic directionality of the actualising tendency as being toward the development of autonomous determination, expansion and effectiveness, and constructive social behaviour. The actualising tendency, Rogers argued, was the one natural motivational force of human beings and which is always directed towards constructive growth. For Rogers, the actualizing tendency was thought to be the basic and sole motivation of people - a universal motivation always resulting in growth, development, and autonomy of the individual. He wrote: "It is the urge which is evident in all organic and human life – to expand, extend, to become autonomous, develop, mature – the tendency to express and activate all the capacities of the organism, to the extent that such activation enhances the organism or the self (Rogers, 1961, p. 35).

As such, the view is that human beings have a basic propensity and potential towards self-organization, self-regulation and growth towards the realization of the organisms' full potential, and fully-functioning behaviour. This process is understood to occur naturally when the organism is supported by the right social environmental factors but easily and commonly derailed when the person's context is controlling and coercive. This part of Rogers (1959) theory of personality development is well known and of interest to contemporary researchers in the positive psychology of authenticity (Joseph, 2016).

However, in another part of Rogers (1959) theory he provides a detailed description of how new experiences that are incongruent to the self-structure are hypothesized to lead to a process of breakdown and disorganisation. For a fully functioning person the self-concept is flexible and adaptable in the face of new experience. Most people are however less than fully functioning and protect themselves by making the self-concept rigid and inflexible. The processes of defense become entrenched and psychological tension builds up so that under certain circumstances such as trauma the self-concept effectively 'breaks' under the pressure. These expressions of self-structure tension and collapse can be extremely distressing and might present to observers as symptoms of mental 'illnesses'. But, there is always meaning in these apparently chaotic and disconnected experiences. The organism will be restored by integration of all experiences into the self-concept by removing threat to the self-concept – resulting in a relaxation of its rigidity and its defenses. Newer experiences, previously discrepant with the self-concept may be tentatively admitted and the process of integration begins. This is the process of therapeutic change that Rogers describes. This part of Rogers' (1959) theory provides a theoretical account of trauma-related processes decades before the introduction of PTSD into the scientific literature (see Joseph, 2003. 2004).

However, as Rogers (1959) was writing well before the introduction of PTSD, the relevance of his theory to trauma psychology and to PTG went unrecognised until Joseph



## Posttraumatic growth as a process and an outcome

(2003; 2004) examined his description of the process of breakdown and disorganisation to show that he was describing essentially the same process as the social cognitive theory of shattered assumptions later put forward by Janoff-Bulman (1992) to account for PTSD. But Rogers' description of the process also provided an explanation for PTG as in his theory he also shows how the resolution of incongruence between self and experience leads to becoming more fully functioning. Becoming more fully functioning, as Rogers (1959; 1963) defines it, would more than adequately describe the range of phenomena that now fall under the term PTG, or in the language of contemporary positive psychology, that of increasing eudaimonic well-being (Joseph, et al., 2012).

Extending Rogers (1959) theory explicitly to build bridges to contemporary trauma theories of the time, and the then emerging positive psychology movement, Joseph and Linley (2005) developed the OVP theory of growth following adversity. Organismic valuing refers to the process of mindful self-awareness that allows the person to evaluate their experiences without defence or distortion. OVP theory is a direct application of Rogers' (1959) explanation of the process of breakdown and disorganization of the self-structure to understanding traumatic stress and puts forward three distinctive theoretical assertions: 1. that people are intrinsically motivated towards growth following adversity; 2. that posttraumatic stress is a normal and natural processes that triggers growth; and 3 that growth is not inevitable but a process which is influenced by the social world, in a way consistent with Rogers (1959) description of social environment conditions. That is to say, the OVP model is based explicitly in the growth model, reconceptualizes posttraumatic stress from the perspective of the growth model, and lends itself to humanistic and relational forms of therapy.

In Rogers' (1959) theory it is incongruence between self and experience that gives rise to posttraumatic stress reactions and it is the congruent reconciliation of self with

## Posttraumatic growth as a process and an outcome

experience that is potentially growthful. Linley and Joseph (2004) used the term adversarial growth to reflect this process of how change arises through conflict of self and experience. In the language of OVP theory, the reduction in tension between self and experience can be achieved in two ways; either through assimilation of the trauma-related experience into the self-structure, or the accommodation of the self-structure to the trauma-related experience (see, Joseph & Linley, 2005). By definition, trauma presents new information about the self and the world and only through accommodation can a person learn from experience, begin to navigate the world more realistically and to move toward greater congruence and hence more fully functioning behaviour.

For example, imagine the situation in which a person makes a mistake which causes injury to another person. As a result the person feels a sense of blame and that their self-concept as a worthy person is under threat. Assimilation might involve them refusing to accept that they were responsible, perhaps by putting the blame on others. In that way, they are defending their self-concept, and trying to assimilate the new information about themselves into their existing self-concept. They manage to appraise their situation in such a way that their existing self-concept as a worthy person stays intact. Accommodation, on the other hand, involves mindful self-awareness that allows the person to evaluate their experiences without defence or distortion such that they are open to change in their self-concept. Evidence using cluster analysis of linguistic markers shows that assimilative and accommodation processes can be distinguished (Scrignaro, Marini, Magrin & Borreani, 2018)

While accommodation is necessary for PTG, trauma-related experiences may be accommodated in positively or negatively valued ways (Joseph & Linley, 2005). Positive accommodation, in the example above, may involve learning about oneself in such a way that leads to greater humility, compassion, and acting with more responsibility to others, which

## Posttraumatic growth as a process and an outcome

would be seen as PTG. Negative accommodation, however, would be when the learning is taken in a direction that is negatively valued in some way such as by becoming more callous towards others.

Both forms of accommodation involve a change in the self-structure in relation to the experience, motivated by an intrinsic need to resolve the tension between self and experience. OVP theory recognises that this process can lead in either a constructive or destructive direction. But while this describes the accommodation process, in reality it is rarely likely to be so clearly dichotomous but involve ambiguity over whether changes are positively or negatively valued. People are doing their best to learn from their experiences and move forward in life, sometimes drawing lessons that seem to take the learning too far such that what is constructive is overshadowed by what is destructive, and vice versa.

Similarly, recent research has begun to recognise that change after trauma can have two sides, PTG and Posttraumatic Depreciation (PTD) (Tedeschi et al., 2018). Seen from the perspective of OVP theory, PTG as commonly understood reflects the notion of positive accommodation whereas Posttraumatic Depreciation (PTD) reflects negative accommodation. Seen this way it would not be possible to experience both PTG and PTD simultaneously on any particular dimension. For example, it is not possible to be more trusting and less trusting simultaneously. But it is possible that on some dimensions a person experiences PTG but on others PTD. For example, a person could become less trusting of other people but more trusting of themselves. Understanding that change following trauma can go in either positively or negatively valued directions is one of the more recent advances in the field (Joseph et al., 2012).

In summary, the OVP model of growth following adversity is explicitly founded on the humanistic paradigm of growth. In positing that people are intrinsically motivated towards accommodation, the OVP theory is different to the other theoretical accounts of PTG (Joseph

& Linley, 2006). As such, OVP theory brings with it its own language and nomological net of variables as well as implications for more client-centered ways of working therapeutically (Joseph, 2015). For example, it is specifically hypothesised that PTG will be facilitated in those who experience supportive social environments characterised by Rogers (1959) description of necessary and sufficient conditions (Payne, Liebling-Kalifani, & Joseph, 2007), or in more contemporary language, autonomy, competence, and relatedness support (Scrignaro, Barni, & Magrin, 2011), develop greater unconditional self-regard (Flanagan, Patterson, Hume, & Joseph, 2015), intrinsic motivation (Murphy, Demetriou, & Joseph, 2015), and organismic valuing (Zwiercan & Joseph, 2018). In the following section I will examine through the lens of the OVP theory some of the contemporary questions occupying researchers in the field of PTG.

### **PROBLEMS AND PARADOXES**

All research inevitably takes place from within a paradigm, and all researchers adopt an epistemological position, either explicitly or implicitly. Methodologically, the term PTG is used to refer to the idea that there has been an increase over time on certain positively valued dimensions of experience following trauma. But as described above, the OVP theory also provides a view of growth following adversity as grounded in a model familiar to humanistic psychologists who use the term growth not purely in an economic sense but to mean a biologically driven process of constructive personality development. But what of those who do not use this as their theoretical understanding?

There are no neutral positions. All researchers are inevitably grounded in a paradigm that influences how they think about the phenomena under investigation. The default paradigmatic setting for mainstream psychology, I would argue, is the illness ideology. Mainstream clinical psychology literature has an implicit illness ideology (Maddux & Lopez,

2015). Even positive psychology largely continues to operate within the medical model and thus to condone the "medicalization" of human experience (Joseph & Linley, 2006). The illness ideology and the growth model are irreconcilable theoretical orientations based on different philosophical assumptions of first principles, that promote different visions of humanity. While it is relatively commonplace for researchers in humanistic psychology to make explicit their positionality, it is not usually the case in mainstream psychology journals that researchers are expected to do so. As such, it seems likely that many researchers may be unaware that they use the term PTG within an illness ideology.

There are important differences in how the humanistic growth paradigm approaches the topic of PTG compared to the illness ideology. Questions that seem perplexing or paradoxical to mainstream research are: whether PTG is a normative process, if it is better described as personality change, what its relationship is with PTSD, if PTG is the same as resilience, if PTG is illusory, and finally, if PTG is actually adaptive. These six questions, I would argue, only seem perplexing or paradoxical when the lens through which they are being examined is the same as when studying illness. In the following section I will show how each of these questions is dealt with when one approaches them from the perspective of OVP theory.

### **Is PTG a normative process?**

First, the mainstream literature does not view PTG as a normative process (Tedeschi et al, 2018). But OVP theory does; it is based on Rogers' (1959) personality development theory which is a description of how actualization is an ongoing process throughout the life cycle as the organism confronts fresh challenges and threats. Growth is a universal process; it is the essence of being human; sometimes the changes that result are more noticeable in some people, in others the changes may be less noticeable, and always involving a balance between movement in destructive and constructive directions. Although PTG represents a

## Posttraumatic growth as a process and an outcome

transformative change in a person, OVP theory describes this as part of a normative process. All experiences in a person's life are organismically evaluated as being congruent or incongruent to the self-structure; there are constant ongoing tensions between the assimilation and accommodation of new information as the person navigates their world and learns about themselves. Trauma offers a massive shock to this same system, and in this respect may be different in magnitude to other threats and challenges, but the process of personality development being described is identical. Seen this way, PTG is a term that describes the same characteristics of personal growth that arise through any other life experiences, including even therapy, in which a person learns about themselves and the world, and modifies their assumptions and behaviour as a result. By definition, from the perspective of OVP theory, PTG is a normative process.

### **Does PTG describe personality change?**

Second, it has been proposed that PTG be rephrased as a positive personality change (Jayawickreme & Blackie, 2014). This has been seen as a controversial position within the PTG literature (Tedeschi et al., 2018). Seen from the perspective of personality psychology as a set of traits identified through factor analysis it may seem a controversial proposal. But it is not controversial if PTG is seen from Rogers' (1959) personality development theory as a normative process. Rogers refers to the self-structure becoming more congruent with experience. In contemporary terms, this could be seen as PTG being an expression of a person becoming more congruent, or authentic (Joseph, 2011, p 134-135). Authenticity, refers to the integration of self and experience consistent with the direction of the actualising tendency such that the person is becoming more fully functioning – positive accommodation in the language of OVP theory. High scores on the PTGI are consistent with this formulation, as would be increases in psychological well-being. As such, whether one assesses PTG through measures such as the PTGI, or contemporary personality scales, or through measures

## Posttraumatic growth as a process and an outcome

of well-being – tools and concepts derived from contemporary psychology, the interpretation from the perspective of OVP theory is that these are ways in which the person is living more congruently, understanding that how congruence manifests itself has a directionality in the ways that Rogers' described as becoming more fully functioning. This could be measured in a variety of ways, such as in how factor analytically derived personality traits shift over time, values change, character strengths appear, and so on. It is not the choice of tool that is important but how research is conceptualized and designed to use these assessment methods in a way consistent with OVP theory to test for increased congruence.

### **Is PTG related to PTSD?**

Third, the association of PTG to PTSD has been seen by some as a problem. Johnson et al (2007) wrote: '...PTG is not just a "co-traveler" with distress, nor simply related to negative outcomes in general. It is related to, and predictive of, symptoms of a debilitating chronic psychological impairment (PTSD). It cannot be emphasised enough – PTSD is a disorder or sign of deep psychological distress that is not in any way a marker of "well-being" (p 432-4333). The problem as these researchers see it is this; if PTG is a universally positive phenomena, it should not be associated with greater levels of PTSD. But this is exactly what some studies have found. Shakespeare-Finch and Lurie-Beck (2014), for example, showed that there was a significant positive relationship between PTG and PTSD symptoms.

Kleim and Ehlers (2009) wrote that it seems a paradox that the shattering of previous beliefs can be a starting point for PTG. However, shattered assumptions, whether seen through the social cognitive lens of Janoff-Bulman's (1992) theory or the humanistic lens of (Rogers, 1959) theory, are central to understanding the emergence of both the experiences described in the diagnostic category of PTSD and PTG. As such, there is no paradox in finding a positive association between PTG and PTSD when seen from the growth model

perspective. It would be predicted that “an initial reaction to adversity consists of a breakdown and disorganisation of schematic structures, and that it is only over time, as the person emotionally processes his or her experience, that changes in outlook become organized in a meaningful structure” (Joseph et al., 2005, p. 78).

Thus, it would be predicted that initially high levels of PTSD would be present and accompanied by low levels of PTG, but as a process of positive accommodation takes place and PTG emerges, a positive association would be observed. Only over time following successful cognitive-emotional processing would we expect this to change to a negative association. Understanding the experiences associated with the diagnosis of PTSD as a process that triggers growth rather than a psychiatric disorder does not in any way detract from the fact that such experiences are often very distressing and impairing to the person; but it is no longer controversial that scores on measures of PTSD and PTG are often found to be positively associated.

From OVP theory, researchers who see such an association as a paradoxical problem simply view the experiences associated with PTSD research through a different paradigm. In a humanistic paradigm PTSD is not universally accepted to be a valid psychiatric disorder but a way of understanding human experience shaped by an illness ideology. From the growth model, the experiences associated with the diagnostic category of PTSD may not be indicative of a disordered mental system but rather of the individuals normal and natural need to emotionally and cognitively process new trauma-related information following the shattering of their assumptive world (Joseph & Linley, 2005). It would seem more appropriate when there is no clear evidence of disorder to refer to these experiences simply as ‘posttraumatic stress’. Posttraumatic stress “can be conceptualized as the engine of posttraumatic growth” (Joseph, Murphy, & Regel, 2012, p. 319). As such, one would expect an association between posttraumatic stress and PTG but the expectation of a simple



association between PTG and PTSD is unrealistic. Rather, we would expect a more complex set of relationships to unfold as people process their traumatic memories.

### **Is PTG the same as resilience?**

Fourth, the relationship between resilience and PTG has yielded mixed findings in the literature. Resilience is the notion of resistance; the ability to resist negative change when confronted by adversity. Some studies show a negative association between resilience and PTG, others a positive association (e.g., Duan, Guo, & Gan, 2015). OVP theory is able to offer a theoretical account of the relationship between resilience and PTG. Rogers' (1959) theory proposes that for a fully functioning person the self-concept is flexible and adaptable in the face of new experience. The more fully functioning a person is, the more resilient they would be predicted to be as there is less incongruence between self and experience. In OVP theory, PTG would therefore predicted to be associated with greater resilience, but only after it has developed and in relation to similar future trauma-related information.

However, as OVP theory describes the process of becoming more fully functioning, the relationship between resilience and growth changes developmentally. Breakdown and disorganisation occurs when the self-concept is rigid and inflexible. That is to say, trauma is experienced when there is incongruence between self and experience – or shattered assumptions to use Janoff-Bulman's term. Thus, it would be predicted therefore that the extent to which a person has the potential to develop PTG in the first place indicates a lack of resilience. PTG only ever occurs in people who are already incongruent and thus vulnerable to traumatisation. As such, a negative correlation would be expected between resilience and the occurrence of PTG. However, as PTG represents increasing congruence between self and experience in relation to the trauma-related information, and the emergence of a more fully functioning person, it would be predicted that those who have developed PTG are now more resilient to future events. A positive correlation would now be predicted. That new resilience

## Posttraumatic growth as a process and an outcome

would be in relation to future instances of similar trauma-related information. Resilience would not be conferred for different traumatic events that pose different threats to the self-structure.

However, there is a further nuance to the above argument which is that resilience may also come about through negative as well as positive accommodation processes, but perhaps it is only the latter that would be considered virtuous. OVP theory would not assume that all forms of resilience are a virtue, and as Friedman and Robbins (2012) argue, a more balanced understanding of resilience, "...exploring the holistic intermixture of positive and negative such as proffered by humanistic psychology, offers a better wager for both scientific advancement and human betterment" (p. 99).

### **Is PTG illusory?**

Fifth, another set of issues is around the issue of whether PTG actually exists with some researchers suggesting that it may be illusory. While we know from prospective research that people do change following adverse events (Peterson & Seligman, 2003), much of the literature to date has been based on retrospective self-reports. However, this has long been recognized as a methodological limitation. The ideal research demands prospective research that can study change in the individual from a time before an event to after it has happened. But this is not always possible. Measures of perceived PTG may not always tally with actual PTG and measures of these two phenomena may operate differently with respect to other variables (Frazier et al., 2009). As such, this reliance on measures of perceived growth has been seen as problematic. Notable critics, Maercker and Zoellner (2004), have hypothesised that PTG may have an illusory and self-deceptive side. There is no doubt that on many occasions people's self-reports of growth will be illusory. As such, it has become common for researchers to discuss PTG as if it may not be real. The question is why so much attention has been given to the concept of illusory growth.

From the humanistic paradigm, it is a fundamental assumption that growth is real. It is axiomatic to humanistic psychologists that people grow, develop, and mature. The fact that PTG is a difficult concept to assess and retrospective measures lack validity does not mean that it does not exist or that it is illusory. This is a measurement problem. If self-reports of PTG are found not to be valid, it is not another type of PTG. A criticism about the low validity of self-report measurements can be made for many tools in psychology, but for other subject areas when a tool is found to be lacking, it is not the concept that is immediately challenged but the validity of the measurement.

The reason, I suggest, is that most concepts appeal to their readers sense of how they already see the world. For the humanistic psychologist the notion that growth may occur in the aftermath of a crisis which offers the opportunity for someone to learn about themselves and their relation to others and the meaning they make of their place in the world, is already a fundamental theoretical principle. For them, the emergence of research into PTG was new wine in an old bottle. But for those approaching PTG from an illness ideology, and trying to reconcile the seemingly paradoxical problem of the association between PTG and PTSD it would make sense that PTG must be a flawed concept. How can people both report that they have grown and be suffering from PTSD unless they are self-deceiving in some way?

Undoubtedly, research to understand the processes by which people understand themselves and their self-perceptions of change and when that is illusory is a worthwhile line of social cognitive psychology investigation with clinical implications; but such an argument that PTG is illusory can distract from the need for research to study PTG as a real phenomenon and to focus on developing more reliable and valid measurement tools. Everything that psychologists attempt to measure with self-report tools is subject to social desirability, self-deception, and impression management effects. But typically this is seen as a methodological problem countered by improvements in psychometric scale development,

use of social desirability tests to partial out effects, and greater sophistication in experimental designs. It is unusual to redefine the problem in ways that imply that the very concept is illusory.

### **Is PTG adaptive?**

Finally, there has been debate whether PTG is associated with better (mental) health and hence should be considered as a primary intervention target in clinical research and practice (Zoellner & Maercker, 2006). In this respect, several systematic literature reviews reported mixed findings regarding the relationship of PTG with different indicators of physical and mental health in individuals who experienced potentially traumatic events (Helgeson, Reynolds, & Tomich, 2006; Sawyer, Ayers, & Field, 2010; Shand, Cowlshaw, Brooker, Burney, & Ricciardelli, 2015; Zoellner & Maercker, 2006). Research shows the retrospective endorsement of items on a questionnaire to assess PTG does not necessarily predict what would be considered adaptive behaviour (Kleim & Ehlers, 2009). As such, there have been calls for caution against the promotion of PTG until there is greater evidence for its adaptive nature, by testing it against other established constructs.

Again, the assertion that there is a need to test for the adaptive nature of PTG is another example of how the problems in measurement are being confused with the concept itself. Measures of actual PTG are related to indices of better adjustment (Kunz, Joseph, Geyh, & Peter, 2019). Certainly, there has been an over reliance on retrospective measures and there is a pressing need for better measurement tools in PTG research and which are able to assess behavioural and real world outcomes. But the idea of gaining wisdom, maturity, perspective on life, healthier relationships, compassion, and so on, as characterised by PTG and related concepts, is simply not controversial. These are widely accepted areas of investigation in their own right and are by definition adaptive states, insofar as all our ideas

Posttraumatic growth as a process and an outcome

of what is healthy and good and to be promoted by psychology are ultimately agreed upon social constructions.

For the humanistic psychologist, PTG is a state worthy of study and clinical interest in its own right, not simply as a utilitarian vehicle for the reduction of negative emotional states, and not to be validated as worthy of study or clinical interest only if it is associated with other variables of interest as defined by the illness paradigm. It is also important to understand that PTG is not synonymous with happiness but it is about grappling with the existential realities of life, finding new meaning and changing one's behaviour consistently.

## **NEW DIRECTIONS FOR RESEARCH AND IMPLICATIONS FOR THERAPEUTIC PRACTICE**

As discussed, growth as a biologically driven process represents a world view underlying the theories and methodology of humanistic psychology, and represents the paradigmatic clash of humanistic psychology with mainstream clinical psychology which has an implicit illness ideology (Maddux & Lopez, 2015). In this section, following on from above, I will first discuss the need for greater reflection by researchers on the paradigm underpinning their research and how this influences the questions asked, methods, and language used. Then, I will discuss the implications of the humanistic paradigm for therapy practice.

### **Directions for research**

The question of the relation between PTG and PTSD also serves to illustrate the different nomological nets associated with these constructs. Many researchers have been interested in the relationship between PTSD and PTG, and therefore introduce both sets of measurement tools into their research. It is possible to select both measures of PTSD and PTG for inclusion in the same study and then conduct statistical analysis on the association between measures. However, as straightforward as this is do statistically, it is theoretically

## Posttraumatic growth as a process and an outcome

more complex. If the concepts of PTSD and PTG are understood from mutually exclusive paradigms - the medical model and humanistic psychology, respectively, such research is theoretically flawed. The research question of whether PTG is related to PTSD is an example of how an illness ideology creeps into the study of PTG. Research which is framed by the PTSD literature, and uses measurement tools to assess PTSD, implicitly condones the medical model and its assumptions.

The above argument is about the conceptualisation of studies and how it may be oxymoronic to include both measures of PTG and PTSD simultaneously as these concepts are derived from competing models of the person. But unlike oil and water which do not mix when put together, it is perfectly possible to develop a questionnaire or interview battery that does mix measures of these two concepts. Much research has done this and there have been interesting studies, for example, showing their differential correlations with other measures (Schuettler & Boals, 2011), but it is ultimately theoretically flawed as the two concepts are from different paradigms with their own nomological nets of hypothesised associations with other variables. As it is impossible by definition to frame a research question from two paradigms simultaneously, researchers interested in whether PTG is associated to PTSD must be framing PTG from within the medical model, or framing PTSD from a humanistic model.

In stating the above there is no question that people can experience significant distress following trauma, the issue is how that distress is understood and described. An empirical study can only ever be theorized from one paradigm at a time. Thus, in viewing PTG as an expression of the humanistic orientation we must reconceptualize posttraumatic stress in a way that is consistent, for example as a normal process rather than as a disordered outcome, as in OVP theory.

As already noted Johnson et al (2007) state that PTSD is not in any way a marker of well-being, and seen from this angle the fact that PTG and PTSD are often found to be

## Posttraumatic growth as a process and an outcome

related is problematic for the concept of PTG. Such a finding would of course lead some to question the adaptive nature of PTG. However, from the perspective of OVP theory, it is PTSD that deserves to be re-evaluated, as an indicator of the need to process difficult and distressing trauma-related information. If instead these signs and symptoms of PTSD are indicative of affective-cognitive processing then as distressing as this may be, posttraumatic stress is a process, towards adaptation.

The measurement tools might be the same, such as the widely used Impact of Event Scale which is often used either as a cognitive process variable or as an outcome measure; i.e., some studies use the Impact of Event Scale as an indicator of processing with the prediction that higher scores predict better outcomes whereas other studies use it as a proxy measure of PTSD – two very different ways of conceptualising the same phenomena (Joseph, 2000). The use of language must adapt to reflect its use in either of these ways. For the researcher working from a growth model it would be oxymoronic to use the terms PTG and PTSD together as they represent two competing models. For a consistent nomological net, posttraumatic stress is reframed as a process variable rather than an outcome variable, indicative of a normal working through process, necessary for PTG to arise (Joseph, 2011; Stockton, Hunt, & Joseph, 2011).

The term ‘posttraumatic stress’ may be used deliberately to indicate that the experiences associated with the diagnostic category of PTSD are not indicate of a disorder but “...normal reactions experienced by people in response to stressful and traumatic situations, indicative of need for cognitive-emotional processing, rather than an abnormal state of mind” (Joseph & Williams, 2005; p. 426). To avoid what seems like oxymoronic use of the term PTSD, therefore, a preference might be to use terms such as ‘posttraumatic stress’, ‘experiences associated with the diagnostic category of PTSD’, or ‘intrusive and avoidant experiences, indicative of the working through process’. Such grammatical

## Posttraumatic growth as a process and an outcome

gymnastics are necessary when approaching the issue from a growth model to be clear in meaning.

Thus, avoiding the term disorder and medical model implications, such research may investigate the association between posttraumatic stress and PTG without it being oxymoronic. However, my experience is that unless this intention is explained in sufficient detail the difference in meaning is easily lost by readers who do not share the same perspective. On the other side of the coin, working from within a medical model and a PTSD framework, one can continue to study positive changes, but the term growth now seems less appropriate compared to other terms such as positive changes or perceived benefits.

The choice of paradigm, and theoretical model, provides a nomological net of variables with hypothesised relationships. For example, from the medical model there has been research on the neural correlates of PTG (Rabe, Zöllner, Maercker, & Karl, 2006). This is interesting research and helps to identify mechanisms through which PTG may take place. The point, however, is that such research arises from the paradigmatic stance of its authors and that the clinical implications are inbuilt from the outset. In this case, such research could lead to pharmaceutical interventions for PTG or other techniques to stimulate areas of the brain. If there is only medical model research, there can only ever be evidence for medical model interventions. In short, if researchers design their studies from the position of the medical model then it is inevitable that the armoury of interventions that are developed are restricted to those from that paradigm.

Theories provide a circumscribed and complete set of hypothesised relations to explain the construct, chosen from a theoretically consistent pool of variables. OVP theory is based in a humanistic growth paradigm that people are intrinsically motivated towards accommodation rather than assimilation under the right social conditions.

## **Implications for therapeutic practice**



The clinical applications of PTG have received much attention (Tedeschi, Calhoun, & Groleau, 2015). But the specific implications of OVP theory offer an additional perspective. The first and most important implication of OVP theory is that growth following adversity is to be seen as a therapeutic goal in its own right, not simply as a utilitarian way to lesson PTSD or to achieve other desired goals, as framed from the illness ideology. This is not ignore the psychological distress of the client; but to recognise that in OVP theory there is no meaningful distinction to be made between therapy for posttraumatic stress and PTG as both are descriptions of the very same process, that of reconciling the incongruence between self and experience, and that the client is intrinsically motivated in this direction. That is to say, whereas posttraumatic stress describes the person's discomfort and distress caused by the incongruence between the self-structure and trauma-related experience, PTG describes the increasing congruence between the self-structure and trauma-related experience.

While the above discussion is critical of the over medicalisation of trauma and how the use of the illness ideology distorts the study of PTG, this is not to deny that the psychological suffering experienced by people is very real. It simply questions the extent to which posttraumatic stress can be thought of a disorder, as opposed to '...a psychological reaction to adverse events that manifests itself, at the biological level, as changes in brain structure' (Bentall, 2004, p. 160). Challenging the medicalization of trauma does not question that there are biological process involved.

Psychological changes are always accompanied by changes in the brain, this while there is much evidence for changes in certain regions of the brain, this is not in itself evidence for disorder. The term disorder implies a dysfunction of a mental mechanism to perform a natural function for which it was 'designed' by evolution (Wakefield, 1992). The diagnostic category of PTSD in no ways guarantees that this is the case. While it may be that some people do indeed have a neuropsychological dysfunction that prevents them from

cognitively processing memories of trauma, this should not be the default assumption until the research is clearer and the diagnostic category is able to identify such patients with accuracy. That there are biological processes involved is not the issue. In challenging the medicalization of trauma, I am concerned with research that assumes these processes are disordered. As I have written elsewhere, ‘Important therefore is the distinction between the minority of people who have an altered neural system that physically prevents them from cognitively processing traumatic memories and the majority of people who are able to process their traumatic memories and for whom posttraumatic stress is indicative of normal and natural processes of trauma resolution’ (Joseph, 2011, p. 63).

From the viewpoint of mainstream psychology, usual practice would be to treat PTSD before embarking on therapy for PTG. This, however, is the application of an illness ideology that there is a distinction to be made; one of the main features of the OVP theory is that these represent the same process. This is a radically different way to understand these two phenomena in an integrative positive psychological way (Pauwels, 2015). But, such an approach alters the agenda of therapy and the responsibility of practitioners.

In mainstream clinical and health psychology journals there is an implicit illness ideology. Maddux and Lopez (2015) show how for the past thirty years psychology research and practice has been increasingly driven by an illness ideology fuelled by the psychiatric terminology of the Diagnostic and Statistical Manual, now in its fifth edition (American Psychiatric Association, 2013). As the topic of PTG has attracted increasing interest within the sub disciplines of clinical and health psychology, whose researchers are typically more influenced by medicalized ideology than humanistic psychologists, it is not surprising to see that many studies implicitly view PTG through a medical model lens. This assertion may surprise many who perceive the topic of PTG to be outside the scope of the medical model because it deals with a positively valued experience. But this is not so.

To explain the medical ideology it is helpful to imagine going to see the medical practitioner. We are likely to be uncertain what the cause of our pain is and anxious for the practitioner to accurately identify the problem and provide the correct solution. To do this, the practitioner needs to be an expert diagnostician. They need to examine us in order to identify our specific symptoms in order to diagnose the most likely cause. Having reached a diagnosis, they are in a position to prescribe the correct treatment. The treatment will depend on what condition they think we are suffering from.

By adopting the medical ideology within psychology, the assumption is that psychological problems are like medical problems; they too require expert diagnosis in order to prescribe the right treatment. This is an assumption embodied in the Diagnostic and Statistical Manual (DSM) of Mental Disorders. Whether or not they adhere strictly to the DSM, many mental health professionals take for granted that there is a need for specific treatments for specific conditions. The practitioner may not view PTG as a medical condition, but unless they think of it in terms of the growth model as well as in economic terms, it is likely that they have positioned it within a medical as opposed to a humanistic model.

Inevitably, the medical model leads to a different mindset about how to approach a topic like PTG. The difference is that in the growth mindset based on the OVP theory it is assumed that people will be intrinsically motivated towards growth, given the right social environment; whereas in the medical model there is the assumption that people are not intrinsically motivated and require some external intervention in order to produce the change.

The second implication, is that therapies based on an illness ideology and that view posttraumatic stress as indicative of a disordered process may potentially serve to thwart growth. For example, seen as a symptom of disorder, therapists may seek to alleviate the intrusive imagery experienced by a patient; but seen as an indication of affective-cognitive processing, therapists may seek to help the client process their experience. To do this, more

person-centered ways of working that respect the self-determination of the client to know best what they need at an organismic level would be the logical choice.

From Rogers' person-centered model, growth is not automatic but occurs when no constraints are placed on the tendency towards actualization. Specifically, Rogers (1959) held that in a social environment characterized by genuineness, empathy, unconditional positive regard, people will develop unconditional positive self-regard, and thus unhindered by defenses and distortions, will self-actualize in a direction toward becoming what he referred to as fully functioning human beings. The clinical implication of Rogers (1959) approach is that the therapist is non-directive in order to provide autonomy support and the right environment to nurture the client's intrinsic motivation towards change.

For the humanistic therapist the relationship factors are seen as more important than the technique (Bozarth & Motomasa, 2017). But this is not to say that techniques cannot be used when following the clients' direction. Joseph, Murphy and Regel (2012) describe the various points in the cycle of processing that a therapist can provide an intervention, to help the client build social support, engage in exposure-related activities, facilitate reappraisal, promote helpful coping strategies, reduce negative and increase positive emotional states. A knowledge of the factors involved in the development and maintenance of PTG provides information for the therapist but how any therapist uses this information ultimately depends on the paradigm through which they appraise such research information. To date most commentators and research have used more directive methods of therapy and as such evidence for client-centered methods is sparse. It seems paradoxical that the main form of therapy for promoting growth, developed over sixty years ago by Rogers and still widely used throughout the world and with a strong evidence base (Murphy & Joseph, 2016), has received so little attention by PTG researchers.

I hope in this article to continue in a tradition of building bridges between humanistic and positive psychology. While initially, the founders of positive psychology saw themselves as offering something very different to humanistic psychology (Taylor, 2001), subsequently the commonalities have been increasingly recognised (Mruk, 2008; Robbins, 2015). While PTG has become a flagship topic of the positive psychology movement, the topic of trauma and growth also goes to the very foundations of humanistic psychology, as exemplified by such basic humanistic notions as authenticity, actualization, congruence, and growth or development. The view presented here is also very clearly grounded in humanistic therapeutic counseling practices. Humanistic psychologists have long been calling for a more humanistic approach to mental health and a more person-centered approach. “It is our job, through the relationship, to help clients face the existential stuff of their lives directly, and discern ways to reenter the path to personal growth and development. Therapists act as guides in the therapeutic encounter, becoming, as it is, the relational metaphor for our clients’ waltz with life itself. It is not Pollyanna to talk about therapy in this way; it is existential truth” (Rockwell, 2012; p. 210). In this way, it my hope that this article will be helpful to humanistic therapists seeking to understand trauma and growth from the positive perspective but also to positive psychologists who may be less familiar with humanistic ideas.

Finally, the term PTG has become an umbrella term for a broad interdisciplinary field of study, and as such I have used it throughout this article. But it is clear that there are different discourses taking place under this umbrella, causing some confusion as to whether the term is best used in this broader sense or more specifically to refer to Tedeschi and Calhoun’s specific measure and model. Tedeschi et al (2018) themselves use the term in the more specific way, befitting their intellectual ownership of the term. As such, I would suggest that to avoid confusion, it may be that the term PTG should be restricted for use only by those working within Tedeschi and Calhoun’s well defined theoretical framework (Tedeschi et al.,

2018). It might be helpful if a new broader term was introduced to capture the field of scholarship in the ‘positive psychology of trauma and adversity’.

## CONCLUSION

Paradoxically, it seems to me that the topic of growth following adversity has challenged the assumptive world of mainstream psychology. My aim was to reflect on the field from the standpoint of humanistic psychology. As a humanistic psychologist I work extensively with the assumption that an orientation towards growth is the default state of human beings. To me, the application of Rogers’ theory seems to offer the most parsimonious account of growth following adversity. It offers a coherent and theoretically consistent perspective on trauma, that is synergistic of both the negative and positive psychological states, and points to client-centered ways of working therapeutically.

In this article I hope to have unpacked what it means practically as a researcher and a therapist to take a perspective on trauma grounded in Rogers’ theory and the client-centered approach as exemplified by the OVP theory. The research literature, preoccupied as it is with questions that seem driven by an illness ideology, can only tell us the best answers to the wrong questions. What seem like paradoxical problems in the literature on growth following adversity are so only because the questions are being framed from within an illness ideology. Seen from a humanistic point of view, growth following adversity is a normative process of real personality development that helps people become more resilient to future adversity and to lead more fully-functioning lives.

It may be that future research will show these to be unfounded assumptions. But to date, there is not the research to suggest otherwise. Occam’s razor says that we should look to the most parsimonious explanation first. Before we look for explanations for different psychological states and design complex medical model interventions, surely we ought to

rule out through empirical evidence those theories that seemingly explain a range of phenomena simultaneously and lead to interventions that are non-medical model and non-directive. I strive to be critical of the ideas I hold and open to contrary evidence but what is striking to me is that so little theory and research in the field of growth following adversity comes from an explicitly humanistic psychology paradigm. For me, the research literature seems confused with many writers tackling a problem from the wrong perspective, like gardeners whose only tools are hammers and wrenches.

However, the topic arose out of trauma psychology which is largely embedded within an illness ideology and even though it now draws attention from a wider positive psychology audience, perhaps it is not surprising that these medical model ideas still shape the field. Even in positive psychology the illness ideology still dominates the field. It is my hope that the present article will introduce new scholars interested in the positive psychology of trauma and adversity to a humanistic approach and act as a call for clinicians and researchers to be more explicitly reflective of the paradigm underpinning how they interpret research findings and apply them to practice.

Acknowledgements. Grateful thanks to Dr Marta Scignaro for her helpful comments on this manuscript.

## REFERENCES

- Abraído-Lanza, A. F., Guier, C., & Colón, R. M. (1998). Psychological thriving among Latinas with chronic illness. *Journal of Social Issues*, 54(2), 405-424.
- Aldwin, C. M. (1994). *Stress, coping, and development: an integrative perspective*. New York: Guilford.
- Altmeier, E. M. & Rasheed Ali, S. (2012). A view across the Life Span of Counseling Psychology. In E.M. Altmaier & Jo-Ida C. Hansen (eds.), *The Oxford Handbook of Counseling Psychology*. Oxford University Press. New York.
- American Psychiatric Association (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed). Washington, DC: American Psychiatric Press.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed). Washington, DC: American Psychiatric Press.
- Bentall, R. P. (2004). *Madness explained: Psychosis and human nature*. London. Penguin Books.
- Bozarth, J. D., & Motomasa, N. (2017). Searching for the core: the interface of client-centred principles with other therapies. In S. Joseph (Ed.), *The Handbook of Person-Centred Therapy and Mental Health: Theory, Research and Practice* (pp. 391-408). Ross on Wye: PCCS Books.
- Calhoun, L. G., & Tedeschi, R. G. (1991). Perceiving benefits in traumatic events: Some issues for practicing psychologists. *Journal of Training & Practice in Professional Psychology*, 5, 45-52.
- DeCarvalho, R. J. (1991). *The growth hypothesis in psychology: The humanistic psychology of Abraham Maslow and Carl Rogers*. EMText: San Francisco.



- Duan, W., Guo, P., & Gan, P. (2015). Relationships among trait resilience, virtues, post-traumatic stress disorder, and post-traumatic growth. *PLoS One*, 10(5), e0125707.
- Erikson, E. (1980). *Identity and the life cycle*. New York: Norton.
- Flanagan, S., Patterson, T. G., Hume, I. R., & Joseph, S. (2015). A longitudinal investigation of the relationship between unconditional positive self-regard and posttraumatic growth. *Person-Centered & Experiential Psychotherapies*, 14, 191-200.
- Frazier, P., Tennen, H., Gavian, M., Park, C., Tomich, P., & Tashiro, T. (2009). Does self-reported posttraumatic growth reflect genuine positive change? *Psychological Science*, 20(7), 912-919.
- Friedman, H. L., & Robbins, B. D. (2012). The negative shadow cast by positive psychology: Contrasting views and implications of humanistic and positive psychology on resiliency. *The Humanistic Psychologist*, 40, 87-102.
- Goldstein, K. (1939). *The organism*. New York: American book.
- Helgeson, V. S., Reynolds, K. A., & Tomich, P. L. (2006). A meta-analytic review of benefit finding and growth. *Journal of Consulting and Clinical Psychology*, 74, 797-816. doi: 10.1037/0022-006x.74.5.797
- Horney, K. (1950). *Neurosis and human growth*. New York: Norton.
- Jaffe, D. T. (1985). Self-renewal: Personal transformation following extreme trauma. *Journal of Humanistic Psychology*, 25(4), 99-124.
- Janoff-Bulman, R. (1992). *Shattered Assumptions*. Simon and Schuster.
- Jayawickreme, E., & Blackie, L. E. (2014). Post-traumatic growth as positive personality change: Evidence, controversies and future directions. *European Journal of Personality*, 28(4), 312-331.

- Johnson, R. J., Hobfoll, S. E., Hall, B. J., Canetti-Nisim, D., Galea, S., & Palmieri, P. A. (2007). Posttraumatic growth: Action and reaction. *Applied Psychology*, 56(3), 428-436.
- Joseph, S. (2000). Psychometric evaluation of Horowitz's Impact of Event Scale: a review. *Journal of traumatic stress*, 13(1), 101-113.
- Joseph, S. (2003). Person centred approach to understanding posttraumatic stress. *Person Centred Practice*, 11, 70-75.
- Joseph, S. (2004). Client-centred therapy, posttraumatic stress disorder and posttraumatic growth. Theory and practice. *Psychology and Psychotherapy: Theory, Research, and Practice*, 77, 101-120.
- Joseph, S. (2011). *What doesn't kill us: The new psychology of posttraumatic growth*. Basic Books. New York.
- Joseph, S. (2015). A Person-Centered Perspective on Working with People Who Have Experienced Psychological Trauma and Helping Them Move Forward to Posttraumatic Growth. *Person-Centered & Experiential Psychotherapies*, 14, 178–90.
- Joseph, S. (2016). *Authenticity. How to be yourself and why it matters*. Piatkus Little, Brown. London.
- Joseph, S, & Linley, P.A. (2005). Positive Adjustment to Threatening Events: An Organismic Valuing Theory of Growth Through Adversity. *Review of General Psychology* 9, 262–280. doi:10.1037/1089-2680.9.3.262
- Joseph, S., & Linley, P. A. (2006). Positive psychology versus the medical model. *American Psychologist*, 61, 332-333.
- Joseph, S., Linley, P. A., Andrews, L., Harris, G., Howle, B., Woodward, C., & Shevlin, M. (2005). Assessing positive and negative changes in the aftermath of adversity:

- psychometric evaluation of the changes in outlook questionnaire. *Psychological Assessment*, 17(1), 70-80.
- Joseph, S., Maltby, J., Wood, A. M., Stockton, H., Hunt, N., & Regel, S. (2012). The Psychological Well-Being—Post-Traumatic Changes Questionnaire (PWB-PTCQ): Reliability and validity. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(4), 420-428.
- Joseph, S., Murphy, D., & Regel, S. (2012). An affective—cognitive processing model of post-traumatic growth. *Clinical psychology & psychotherapy*, 19(4), 316-325.
- Joseph, S., & Williams, R. (2005). Understanding posttraumatic stress: Theory, reflections, context and future. *Behavioural and Cognitive Psychotherapy*, 33(4), 423-441.
- Joseph, S., Williams, R., & Yule, W. (1993). Changes in outlook following disaster: The preliminary development of a measure to assess positive and negative responses. *Journal of traumatic stress*, 6(2), 271-279.
- Kunz, S., Joseph, S., Geyh, S., & Peter, C. (2019). Perceived posttraumatic growth and depreciation after spinal cord injury: Actual or illusory? *Health Psychology*, 38(1), 53-62.
- Linley, P.A., Joseph, S. (2004). Positive change following trauma and adversity: A review. *Journal of Traumatic Stress*, 17, 11–21. doi:10.1023/B:JOTS.0000014671.27856.7e
- Maddux, J. E., & Lopez, S. J. (2015). Toward a positive clinical psychology: Deconstructing the illness ideology and constructing an ideology of human strengths and potential in clinical psychology. In S Joseph (eds) *Positive Psychology in Practice. Promoting Human Flourishing in work, Health, Education, and Everyday Life* (2nd ed.). (pp. 411–427). New York: John Wiley.
- Maslow, A. (1968). *Toward a psychology of being* (2<sup>nd</sup> ed.). New York: Van Nostrand.

- Meichenbaum, D. (2013). The therapeutic relationship as a common factor: Implications for trauma therapy. In D. Murphy & S. Joseph (Eds.), *Trauma and the therapeutic relationship: approaches to process and practice* (pp. 12 - 24). Palgrave Macmillan: Houndmills.
- Miller, W. R., & C'deBaca, J. (1994). Quantum change: Toward a psychology of transformation. In T. F. Heatherington and J. L. Weinberger (Eds.), *Can personality change?* (pp. 253-281). Washington, DC: American Psychological Association.
- McCormack, L., Hagger, M. S., & Joseph, S. (2011). Vicarious growth in wives of Vietnam veterans: A phenomenological investigation into decades of “lived” experience. *Journal of Humanistic Psychology*, 51(3), 273-290.
- McMillen, J. C., & Fisher, R. H. (1998). The Perceived Benefit Scales: Measuring perceived positive life changes after negative events. *Social Work Research*, 22(3), 173-187.
- Mruk, C. J. (2008). The psychology of self-esteem: A potential common ground for humanistic positive psychology and positivistic positive psychology. *The Humanistic Psychologist*, 36(2), 143-158.
- Murphy, D., Demetriou, E., & Joseph, S. (2015). A cross-sectional study to explore the mediating effect of intrinsic aspiration on the association between unconditional positive self-regard and posttraumatic growth. *Person-Centered & Experiential Psychotherapies*, 14, 201-213.
- Murphy, D., & Joseph, S. (2016). Person-centered therapy: Past, present, and future orientations. In D. J. Cain, K. Keenan., & S. Rubin (Eds.), *Humanistic psychotherapies: Handbook of research and practice, Second Edition* (pp. 185 - 218). Washington, APA.

- Nelson, S. D. (2011). The posttraumatic growth path: An emerging model for prevention and treatment of trauma-related behavioural health conditions. *Journal of Psychotherapy Integration*, 21 (1), 1-42.
- O'Leary, V. E., & Ickovics, J. R. (1995). Resilience and thriving in response to challenge: an opportunity for a paradigm shift in women's health. *Women's Health*, 1(2), 121-142.
- Pais-Hrit, C., Wong, D., Gould, K. R., & Ponsford, J. (2019). Behavioural and functional correlates of post-traumatic growth following traumatic brain injury. *Neuropsychological rehabilitation*, 1-19.
- Park, C. L., Cohen, L. H., & Murch, R. L. (1996). Assessment and prediction of stress-related growth. *Journal of personality*, 64(1), 71-105.
- Pauwels, B. C. (2015). The uneasy – and necessary – role of the negative in positive psychology. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life*, (pp. 807-821). Wiley: Hoboken, NJ.
- Payne, A., Liebling-Kalifani, H., & Joseph, S. (2007). Client-centred group therapy for survivors of interpersonal trauma: A pilot investigation. *Counselling and Psychotherapy Research*, 7(2), 100-105.
- Peterson, C., & Seligman, M. E. (2003). Character strengths before and after September 11. *Psychological Science*, 14(4), 381-384.
- Rabe, S., Zöllner, T., Maercker, A., & Karl, A. (2006). Neural correlates of posttraumatic growth after severe motor vehicle accidents. *Journal of Consulting and Clinical Psychology*, 74(5), 880.
- Robbins, B. D. (2015). Building bridges between humanistic and positive psychology. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life*, (pp. 31-45). Wiley: Hoboken, NJ.

- Rockwell, D. (2012). Humanizing mental health: Existentialism and the DSM-5: Can humanistic psychology light the way? *The Humanistic Psychologist*, 40, 207-211.
- Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications and theory*. London, England: Constable.
- Rogers, CR (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21, 95–103.
- Rogers, CR (1959) A theory of therapy, personality and interpersonal relationships, as developed in the client-centred framework. In S Koch (ed) *Psychology: A study of science, Vol. 3: Formulation of the person and the social context* (pp. 184–256). New York: McGraw Hill.
- Rogers, C. R. (1961). *On becoming a person*. London: Constable.
- Rogers, C. R. (1963). The concept of the fully functioning person. *Psychotherapy: Theory, Research & Practice*, 1(1), 17.
- Sawyer, A., Ayers, S., & Field, A. P. (2010). Posttraumatic growth and adjustment among individuals with cancer or HIV/AIDS: A meta-analysis. *Clinical Psychology Review*, 30, 436-447. doi: 10.1016/j.cpr.2010.02.004
- Schuettler, D., & Boals, A. (2011). The path to posttraumatic growth versus posttraumatic stress disorder: Contributions of event centrality and coping. *Journal of Loss and Trauma*, 16(2), 180-194.
- Shakespeare-Finch, J., & Lurie-Beck, J. (2014). A meta-analytic clarification of the relationship between posttraumatic growth and symptoms of posttraumatic distress disorder. *Journal of anxiety disorders*, 28(2), 223-229.
- Shand, L. K., Cowlshaw, S., Brooker, J. E., Burney, S., & Ricciardelli, L. A. (2015). Correlates of post-traumatic stress symptoms and growth in cancer

- patients: A systematic review and meta-analysis. *Psycho-Oncology*, 24, 624-634.  
doi: 10.1002/pon.3719
- Scrignaro, M., Barni, S., & Magrin, M. E. (2011). The combined contribution of social support and coping strategies in predicting post-traumatic growth: a longitudinal study on cancer patients. *Psycho-oncology*, 20(8), 823-831.
- Scrignaro, M., Marini, E., Magrin, M. E., & Borreani, C. (2018). Emotive and cognitive processes in cancer patients: linguistic profiles of post-traumatic growth. *European Journal of Cancer Care*, 27(1), e12620.
- Stockton, H., Hunt, N., & Joseph, S. (2011). Cognitive processing, rumination, and posttraumatic growth. *Journal of Traumatic Stress*, 24(1), 85-92.
- Taylor, E. (2001). Positive psychology and humanistic psychology: A reply to Seligman. *Journal of Humanistic Psychology*, 41(1), 13-29.
- Tedeschi, R. G., & Calhoun, L. G. (1995). *Trauma and transformation. Growing in the aftermath of suffering*. Thousand Oaks, CA: Sage.
- Tedeschi, R.G, & Calhoun, L.G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9, 455–471.doi:10.1007/BF02103658
- Tedeschi, R. G., Calhoun, L. G., & Groleau, J. M. (2015). Clinical applications of posttraumatic growth. In S. Joseph (Ed.), *Positive psychology in practice: Promoting human flourishing in work, health, education, and everyday life*, (pp. 503-518). Wiley: Hoboken, NJ.
- Thompson, S. C. (1985). Finding positive meaning in a stressful event and coping. *Basic and Applied Social Psychology*, 6(4), 279-295.
- Wakefield, J. C. (1992). The concept of mental disorder: On the boundary between biological facts and social values. *American Psychologist*, 47, 373-388.

## Posttraumatic growth as a process and an outcome

Weiss, T., & Berger, R. (2010). *Posttraumatic growth and culturally competent practice:*

*Lessons learned from around the globe.* Hoboken, NJ: Wiley.

Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology -A critical review and introduction of a two component model. *Clinical Psychology Review*, 26, 626-653. doi: 10.1016/j.cpr.2006.01.008

Zwiercan, A., & Joseph, S. (2018). Focusing manner and posttraumatic growth. *Person-Centered & Experiential Psychotherapies*, 17(3), 191-200.